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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,626	09/18/2003	Hochao Huang	250320-1030	6556

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EXAMINER	
MOON, SEOKYUN	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/665,626	HUANG ET AL.	
	Examiner	Art Unit	
	Seokyun Moon	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,6,8 and 9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,6,8 and 9* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed with respect to inherency used in the rejection of **claim 1** have been fully considered but they are not persuasive.

2. The applicant pointed out that the Office Action constitutes legal error for disclosing inherency with respect to the disclosed claim limitation, "*to output commands about a back light source and video information*".

Examiner respectively disagrees.

Cui et al. (U.S. Pat. No. 2004/0160435 A1, herein after referred to as "Cui") teaches a method of increasing image brightness and reducing back light brightness in a liquid crystal display [par. (0034) lines 6-10]. In order to increase the image brightness, it is required for Cui's "*graphic gamma unit 545*" to output any type of command signals such as control voltages or control currents to Cui's "*row drivers 515*" or "*column driver 515*" such that "*row drivers 515*" or "*column driver 515*" is driven to scale each sub-pixel color [par. (0032)]. Furthermore, it is required for Cui's "*back light 540*" to be controlled by command signals such as control voltages or control currents outputted by "*back light modulation circuit 600*" since "*back light 540*" is controlled by "*back light modulation circuit 600*".

Since there is no alternative possible method of increasing image brightness and reducing back light brightness other than outputting command signals, it is inherent for Cui to teach increasing image brightness and reducing backlight brightness according to the commands about a back light source and video information, as followed by the recent decision of *Elan Pharms. v. Mayo Found. for Med. Educ. & Research, 304 F.3d 1221 (Fed. Cir. 2002),* "***An inherent limitation is one that is necessarily present***".

3. Applicant's arguments with respect to **claim 1** have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

4. **Claim 6** is objected to because of the following informalities.

The claim limitation included in the original claim, "*by about 50% - 100%*" is not disclosed in the amended claim and is not indicated being removed from the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claim 1** is rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al. (U.S. Pub. No. 2006/0071899 A1, herein after referred to as "Chang").

Chang teaches a power-saving method for video-broadcasting system in liquid crystal display equipment [par. (0014)], wherein said liquid crystal display equipment, includes a computer and an LCD [par. (0002) lines 1-6], said power-saving method mainly comprising the step of:

outputting a command ("*backlight intensity information*") [fig. 2] about brightness of a back light source and a command (the signal transmitted from "*adaptation unit 103*" to "*visual data outputting unit 105*") about video information;

decreasing brightness of the back light according to the command about brightness of the back light source [par. (0017)]; and

increasing brightness information and contrast information according to the command about video information [par. (0017)].

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. **Claims 1, 3, 6, 8,** and **9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cui in view of Chang et al. (U.S. Pub. No. 2006/0071899 A1, herein after referred to as "Chang").

As to **claim 1**, Cui teaches a power-saving method ("*power management*") for video-broadcasting system in liquid crystal display equipment, wherein said liquid crystal display equipment, includes a computer and an LCD (abstract, and par. [0003] and [0004]), said power-saving method mainly comprising the steps of:

outputting a command (the signal outputted by "*back light modulation circuit 600*" controlling back light brightness; par. [0034] lines 6-10) about brightness of a back light source

and a command (the signal outputted by "*graphic gamma unit 545*" controlling the brightness of an image to be displayed; par. [0032]) about video information;

decreasing brightness of the back light according to the command about brightness of the back light source; and

increasing brightness information according to the command about video information (par. [0048] lines 6-9).

Cui does not teach a method of adjusting contrast information in response to changes on the back light brightness.

However, Chang [fig. 2] teaches a liquid crystal display comprising a generation means decreasing the intensity of a back light and an adaptation means for increasing the brightness and the contrast of an image signal [par. (0017)].

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cui to increase the contrast of the image to be displayed when the brightness of the back light is decreased, as taught by Chang, in order to prevent the device user to recognize the degradation on the image quality caused by the reduction on the brightness of the back light, thus to provide an optimal display with minimum power consumption [par. (0017)].

As to **claim 3**, Cui teaches that decreasing brightness of the back light decreases brightness of the back light by about 30% - 70% since the brightness of the back light is proportional to the power consumption of the back light (par. [0034] lines 6-10).

As to **claims 6** and **8**, Cui does not expressly disclose increasing brightness information by about 50%-100% and increasing contrast information by about 70%-130%.

However, the disclosed specific ranges, 50%-100% for brightness and 70%-130% for contrast, for the increment of brightness and contrast for video information depend on the intensity of the backlight used for the display. In other words, even though the brightness of the

backlight is reduced by about 30%-70%, the adjustment ranges for brightness and contrast are not limited to 50%-100% and 70%-130% for optimal display if the designed intensity of the backlight varies. For example, when the designed intensity of the backlight is high, the adjustment ranges for brightness and contrast can be less than 50%-100% and 70%-130% for optimal display while the adjustment ranges for brightness and contrast can be greater than 50%-100% for and 70%-130% for optimal display when the designed intensity of the backlight is low.

Therefore, it is an obvious matter of design choice to specify the increment ranges for brightness and contrast for video information in such way depending on the designed intensity of the backlight source used, for optimal display.

As to **claim 9**, Cui teaches the used LCD to be TFT-LCD (col. 2 lines 1-2).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seokyun Moon whose telephone number is (571) 272-5552. The examiner can normally be reached on Mon - Fri (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 3, 2006
S.M.

AMR A. AWAD
PRIMARY EXAMINER